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Enhancing Networks for Resilience Stage Two:

Understanding applied
learning to enhance disaster
preparedness in a PCP

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Disclaimer

The views expressed herein do not represent those of the Australian Government, or any of the organisations that participated in the study. They are the views and interpretations of the report authors.

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ACRONYMS

Main acronyms used in the report are listed here. There is an additional listing of Southern Grampians Glenelg Primary Care Partnership agencies in Appendix 1 and associated acronyms.

CFA	Country Fire Authority
DELWP	Department of Environment, Land, Water and Planning
DHHS	Department of Health and Human Services
EN4R	Enhancing Networks for Resilience project
EN4R#2	Enhancing Networks for Resilience Stage Two (This project)
NSDR	National Strategy for Disaster Resilience
SGGPCP	Southern Grampians Glenelg Primary Care Partnership
SNA	Social Network Analysis

Executive Summary

Introduction and background

The National Strategy for Disaster Resilience (NSDR) recognises that the strength of partnerships and networks in the non-government and community sector are fundamental for enhancing disaster resilience (COAG 2011). Southern Grampians Glenelg Primary Care Partnership (SGGPCP), in collaboration with RMIT University, therefore sought to examine how networks developed through SGGPCP might contribute to disaster resilience outcomes, specifically disaster preparedness. Stage One of the Enhancing Networks for Resilience (EN4R) project identified that networking and applied learning both have a significant relationship with preparedness activities, but that further understanding of networking enablers and pathways to the application of learning were required. This report presents insights from the second stage of the EN4R project that sought to investigate these questions and the role that SGGPCP could play in facilitating networking and learning in the context of disaster preparedness.

Methodology

The project was conducted in three distinct phases and investigated both formal and informal learning. Phase One evaluated what networking and applied learning resulted from a formal learning approach using a desk-top heatwave and fire scenario in two workshops with health and community care workers. Networking was assessed using social network analysis (SNA) and applied learning was evaluated by using Kirkpatrick's training evaluation framework. Enablers and barriers for applied learning were also identified in Phase One.

Phase Two investigated informal learning by analysing the conditions that facilitated informal learning within four different, regular network meetings – both informal and formally convened meetings. It also identified the enablers and barriers to networking. Phase Three involved a community-based information distribution approach called 'pass-the-parcel', which identified reported change in community-member actions after receiving a parcel of heatwave related information and objects.

Key findings

The formal learning approach contributed to increased knowledge and applied learning in the workplace

The formal, desktop scenario-based exercise was found to enhance knowledge of how both heatwave and fire could possibly impact participants' clients and services, as well as ways they may be able to prepare for heatwave and fire and reduce their clients' and services' vulnerability to such events. This included both formal organisational policies and processes that could be changed, along with informal mechanisms that they could implement immediately themselves, such as talking to their clients about how they prepare for heatwave and fire. Follow-up interviews with nine of the workshop participants found that most had applied their learning in their workplace: they had implemented some or all the actions they had committed to during the workshops. The most common action was to assemble a car emergency kit, while the second most common was to implement changes to their community information and education policies and procedures for heatwave and fire.

The formal learning approach extended 'advice-seeking' networks, but was less effective at extending general professional networks

The pre-workshop advice-seeking networks of the Summer Readiness workshop participants were explored through social network analysis. It revealed that the CFA was the most common source of

advice for both fire advice and surprisingly also heatwave advice. It also revealed that particularly for heatwave, participants sought advice from colleagues in their own organisations and quite a wide diversity of other organisations. After the workshops, participants were able to provide an additional 29 nominations for sources of advice for heatwave, including the CFA, local government, health services, and hospitals. While an additional 20 nominations for fire advice were provided, these remained predominantly the CFA. It is not surprising the CFA featured so prominently in the nominations for 'additional advice', as they were the uniformed, professional presenters during the workshop, and repeatedly encouraged participants to contact them if they needed any advice, information, or assistance. However, this suggests that a diversity of authoritative speakers is required when addressing multiple hazards in a formal learning environment.

While the desk-top scenario was quite an effective mechanism for extending advice-seeking networks and applied learning, it appeared to be less effective at extending the general professional networks of the participants. Follow-up interviews suggested that most participants had not yet connected with contacts made during the workshop, and they did not really intend to. One reason for this could be that while discussion was encouraged, insufficient time was allocated to the networking opportunities – that is, the morning tea and lunches. It's also recognised that relationships take time to develop, so may be built over multiple encounters.

The network meetings were effective forums for building relationships and for providing the conditions for informal learning.

What people learned about disaster preparedness through regular network meetings (both formally convened network meetings and informal meetings) was not directly assessed; rather the conditions that enable informal learning were explored through sites of work-related social interaction, that is, 'network meetings', and therefore the potential for informal learning for disaster preparedness. The research found that these meetings provided the conditions for informal learning, including space for cooperation, evaluation and reflection, as well as access to new information and knowledge. They could therefore be useful sites for informally learning about disaster preparedness, including sharing personal disaster preparation experiences, reflecting on what has worked previously, providing a forum for sharing information and knowledge about disaster preparedness actions and potentially providing a vehicle for cooperation for preparing for disasters. However, the network meetings did not provide 'coaching', which is a mechanism to make implicit knowledge explicit, and thus contribute to enhanced learning. The meetings were not established to provide coaching to members, however the research suggests this may be an opportunity to enhance informal learning.

The 'pass the parcel' information distribution enhanced community participants' application of heatwave mitigation actions.

Informal learning was investigated in a community context through a 'pass the parcel' approach to information sharing. In the rural community of Merino, a heatwave information package was passed from one community member to another. The follow up survey and focus group suggested that awareness among the participants of how they could prepare for and reduce the impacts of heatwave was increased through the approach, and that mitigation actions were taken by respondents as a result of receiving the package.

The key barrier to applying learning in the workplace and networking is lack of time.

The most prominent barrier to applying learning in the workplace was "lack of time", but particularly associated with elements of prioritisation and personal motivation to implement the learning. For smaller agencies, lack of resources and poor access to appropriate communication technology were also barriers to applying learning. For example, lack of satellite phones to enable emergency communications with staff while in the field. While for larger agencies, organisational processes posed a greater barrier to applied learning than resources, for example, slow processes of review for policy change, or lack of internal processes to share lessons. Similarly, "lack of time and issues of prioritisation" of the network meeting was the biggest barrier to networking.

Personal motivation and reflecting on the lessons learned were key enablers of applied learning.

Interview data showed that discussing the Summer Readiness workshop with colleagues and reflecting on the relevance for their situation helped participants digest the information provided and contributed to cementing commitment to action. However, personal motivation to act was the most prominent stated enabler of applied learning; participants suggested that if the information was new to them, relevant, and important, they implemented actions in their workplace.

Network meetings were valued for enabling trust, support, and providing connections.

Value is a very personal thing, but network meeting participants consistently cited notions of trust, feeling supported, and providing connections to assist with their work as indicators of value from network meetings. The network meetings were thus perceived as contributing to social capital, a potential contributor to co-operation for disaster preparedness and resilience.

Recommendations for how SGGPCP might support applied learning and networking for disaster preparedness

SGGPCP is recognised as an organisation that connects people and organisations, and a facilitator of information exchange and learning opportunities between agency partners, they can therefore potentially play a valuable role in facilitating learning for disaster preparedness throughout the SGGPCP system. The following recommendations emerged from the research.

Organising formal learning situations

Organising formal learning or professional development opportunities for community and health sector workers and bringing topic experts to the region is an important role for the SGGPCP. Well-structured, interactive formal learning opportunities that are relevant to participants' work roles can lead to changed disaster preparedness practices within SGGPCP agencies. Providing formal learning opportunities not only enhances knowledge and skills for disaster preparedness, but also provides opportunities for extending advice-seeking networks, and for relationship-building between partner agencies.

Communicating lessons learned

SGGPCP can leverage formal learning opportunities by effectively sharing the lessons from these activities. SGGPCP currently operate a webpage, Facebook page, and share information through a regular newsletter. Highlighting the key relevant lessons from formal learning opportunities in these and other media will support participants back in the workplace to share their learning, and to alert others to the value of the learning opportunities. Additionally, workshops and other learning opportunities can be designed to include a process which encourages reflection and facilitates participants to identify steps they may take to communicate the lessons they have learned back in their respective workplaces.

Leading by example

SGGPCP have previously demonstrated they are an agile organisation, able to trial and apply innovative approaches to community and health sector issues. Recognising this role, SGGPCP could continue to develop and apply their skills and capacities to facilitate new community-centred and community owned approaches to disaster preparedness, and the broader concept of disaster resilience.

Communicating value – sharing stories

Network meetings (whether formal or informal) need to be perceived as valuable for both individuals and their organisations for them to be prioritised and for them to be successful forums for informal

learning. SGGPCP could play an important role in highlighting the value of networking, through sharing stories of success and innovation through their existing media (website, Facebook page and newsletter), or by trialling other tools such as podcasts.

Skill and opportunity sharing

Although a small organisation, SGGPCP has excellent skills in securing grant funding. They might explore opportunities to work collaboratively with partner agencies to address particular barriers (such as facilitating a shared communication platform for networking), or to bring experts to the area for formal learning opportunities.

Coordination beyond the PCP network

SGGPCP have a recognised coordination and information dissemination role within the Southwest community, already working to enhance relationships and broaden engagement beyond traditional health agencies. Continuing this role may include broadening SGGPCP's membership base or facilitating deeper connections outside the PCP. For example, inviting non-member agencies to formal learning activities (as per the Summer Readiness workshops), or engaging through non-PCP networks.

Bringing people together

Time and distance are significant barriers to networking. However, face-to-face engagement was still highly valued by research interviewees. Apart from formal learning opportunities, SGGPCP may be able to facilitate bringing people together through existing events such as White Ribbon lunches or Harmony Day celebrations. Alternatively, they may be able to broaden engagement in existing networks through rotating the locations of meetings to reduce travel time for some partners.

Coaching

Disaster resilience is a new area for many health and community sector workers. Helping to make tacit learning from network meetings more explicit may be beneficial. SGGPCP may wish to trial a coaching or mentoring program for this emerging area.

Connecting with community

SGGPCP was recognised as being very strong at connecting agencies to one another, so there is a possible role for SGGPCP to build on their trusted relationships to facilitate connection to (and between) different parts of the community in the area of disaster preparedness and resilience. This may be through trialling community-centred, systems approaches (as outlined in "Leading by example" recommendation above).

1. Introduction

The National Strategy for Disaster Resilience (NSDR) (COAG 2011) describes non-government and community sector organisations as being at the forefront of strengthening disaster resilience in Australia. In addition, the strategy has a recurring theme that refers to the importance of strength of existing partnerships and networks, and that such networks are significant in leading change and promoting and enhancing disaster resilience. In support of these priorities, the NSDR funded Southern Grampians Glenelg Primary Care Partnership (SGGPCP) to collaborate with RMIT University, in a second stage of the Enhancing Networks for Resilience Project (EN4R#2) to examine how such networks might contribute to disaster resilience through their role in networking and applied learning for disaster preparedness. The preceding Stage One of EN4R#1 is outlined in McCann *et al.* (2016)

This current report outlines the EN4R#2 project that investigated the role that SGGPCP could play in supporting learning and networking for disaster preparedness. Specifically, the EN4R#2 project examined:

- What was the effectiveness of different learning approaches in strengthening networks and learning for disaster preparedness for health and community sector workers?
- What were the pathways and enablers of applying learning for disaster preparedness for SGGPCP partners?
- How can SGGPCP facilitate and enable applied learning¹ for disaster preparedness for PCP health and community sector workers?

The project set out to investigate these questions with a focus on formal and informal learning approaches beginning with delivery of a formal workshop in collaboration with the Country Fire Authority (CFA). Informal approaches were investigated by studying four established networks plus a community-based learning approach called 'pass the parcel'. This report sets out the approaches taken, their evaluations, and recommendations stemming from the analysis.

¹ Where "applied learning" is learning that then alters practices within an organisation

2. Background

SGGPCP is one of 28 Primary Care Partnerships funded through the Victoria Department of Health and Human Services (DHHS) to bring together health and human service organisations in a coordinated approach to improve the health of Victorians. SGGPCP is a partnership of 20 agencies (Appendix 1) from across the Southern Grampians and Glenelg Shires in South West Victoria. The Partnership includes local governments, a local water authority, large and small health services, bush nursing centres, disability providers, mental health organisations, aboriginal health providers, community sector organisations, and neighbourhood houses. The partnership also engages with a broad range of stakeholders including education, employment, emergency management, health, housing, and community participation. SGGPCP has a predominant focus on prevention with its main mission centred on supporting communities to thrive. To this end the Partnership documents priorities around:

- 1) A preventative and sustainable health system;
- 2) Improved social determinants of health; and
- 3) Improved control, resourcefulness, and resilience for our community.

The third priority encompasses the SGGPCP focus on community resilience in the face of climate change. In 2008, SGGPCP published 'Policy Signpost #3 Climate Change Adaption: A framework for local action' (Rowe & Thomas 2008) which launched SGGPCP into the climate change adaptation sector providing guidance and informing future approaches. Subsequent work has been heavily influenced by government direction, funding opportunities, as well as partnership capacity and demand. With an emphasis on everyday impacts of climate change on communities, initial projects focussed on household energy efficiency and food security with ongoing work on heatwave particularly with local government heatwave planning and drought. More strategic approaches were generated after participation in Victorian Centre for Climate Change Adaptation research (Fünfgeld *et al.* 2018), which precipitated the Rural People Resilient Futures Project in 2015 (Rance *et al.* 2015).

The antecedent research and projects highlighted the leadership potential in the PCP platform to build the capacity of the SGGPCP partner agencies while working to influence policy and government through research and extended partnerships. The first stage of Enhancing Networks for Resilience (EN4R#1)(McCann *et al.* 2016) focussed on the role of inter-organisational networks using a mixed method approach. Qualitative data was gathered through interviews and workshops to understand the enablers and barriers to collaboration, while social network analysis resulted in a number of maps depicting the relationships between partner agencies. Further analysis of the eight possible inter-relationships through exponential random graph modelling (ERGM) resulted in a conceptual model to summarise results (Figure 1).

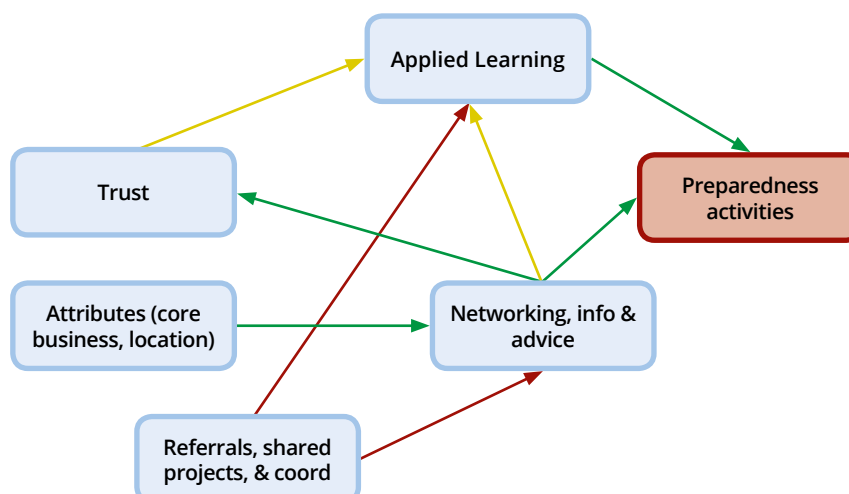


Figure 1: Conceptual model from Stage One of the EN4R project (McCann et al. 2016)

These results indicated that networking and applied learning have a significant relationship with preparedness activities. However, further understanding of applied learning was required. These insights led to the focus of EN4R#2 on understanding the pathways and enablers of applied learning and networking.

3. Learning and shadow spaces for disaster preparedness

The social network analysis (SNA) undertaken in EN4R#1 suggested that when organisations learn from each other and apply that learning through practice change in their organisations, there is a higher chance they will collaborate on preparing for disasters (McCann *et al.* 2016). It also identified that further understanding of the pathways to the application of learning is required (McCann *et al.* 2016). This notion of 'applied learning', that is, where changed knowledge or skills leads to altered practices within SGGPCP agencies, introduces the two related concepts of organisational learning and individual learning. While organisational learning relates to the continual change in organisational-level processes and norms to improve efficiency and effectiveness at achieving organisational goals, individual learning is concerned with how individuals acquire new knowledge and skills, or attitudes that may result in changes in behaviour (de Kraker 2017; Marsick & Watkins 2001). The scope of this project precluded investigation of SGGPCP partner organisational learning, focusing instead on the individual learning of partner agency staff, and the practice change they stated they had enacted individually in their workplaces.

When considering adult learning and education in the workplace, learning can be identified as formal, non-formal, informal, and incidental (Berg & Chyung 2008; Kyndt, Dochy & Nijs 2009; Marsick & Watkins 2001). Alternatively, it can be represented as a continuum from more formal through to more informal, rather than distinct categories (Eraut 2004) (Figure 2). While more formal learning is considered structured, occurring in a specified educational setting with established outcomes, more informal learning is generally considered implicit, unintended, unstructured, experiential, opportunistic, and non-institutional, often in the absence of a teacher (Berg & Chyung 2008; Eraut 2004). Reflecting the continuum interpretation, informal learning can result from daily work-related activities and social interactions (Berg & Chyung 2008; Feng *et al.* 2017; Halliday-wynes & Beddie 2009).



Figure 2: Continuum of learning in the workplace (the author adapted from Berg & Chyung 2008; Eraut 2004; Kyndt *et al.* 2009; Marsick & Watkins 2001)

Formal learning is always considered intentional, that is, there is an explicit aim to learn from a formal learning activity. Learning towards the more informal end of the continuum can be either intentional or unintentional (Marsick & Watkins 2001). When considering intentional adult learning, there are five core principles: a) adults need to know why they are learning; b) adults are motivated to learn by the need to solve problems; c) adults' previous experience must be respected and built upon; d) learning approaches should match adults' background diversity; and e) adults need to be actively involved in the learning process (Bryan *et al.* 2009). These principles interact with contextual learning factors such as organisational leadership, culture, systems and practices, incentives and rewards (Marsick 2009) and with individual's personal characteristics (Berg & Chyung 2008).

Formal workplace education is frequently termed 'professional development' and involves removing a staff member from their daily work activities to participate in such things as presentations, workshops, practical or desktop-based training exercises and scenarios. A recent meta-analysis of formal desktop learning exercises for disaster preparedness of health professionals demonstrated such exercises can contribute to improved understanding, confidence to act, and disaster preparedness knowledge (Skryabina *et al.* 2017)

Formal education, however, is not how the majority of adults learn in the workplace; "workers learn more in the coffee room than in the classroom" (Cross 2007). A report prepared for the Australian Government noted that 75% of workplace learning occurs through informal means (Halliday-wynes & Beddie 2009; p6). Informal learning can take place while undertaking regular, daily tasks, and through social interactions and participation in group activities. EN4R#1 (McCann *et al.* 2016) note that learning with and through social interaction plays an important role in disaster resilience and climate change adaptation. As identified by Eraut (2004) and Pelling *et al.* (2008), group interactions, meetings, and networking activities are workplace activities that can provide a space for informal learning. Such informal learning can occur "in the spaces surrounding activities and events with a more overt formal purpose" (Eraut 2004; p247). Stacey coined the phrase 'shadow system' to describe the interactions and links between members of an organisation, that exist outside the formal rules prescribed by the organisation (Stacey 1996). Creating space for 'shadow systems', for engagement and networking, both within and between organisations, where individuals can develop private as well as professional social relationships is therefore argued to be a pathway to learning. However, Stacey (1996) and Pelling *et al.* (2008) note the key challenge for organisations is to influence and support but not to manage such 'shadow systems'.

Through the interactions and connections made in 'shadow systems' members have the potential to build formal and informal ties both within their own organisations, and also across organisations; building social capital. Social capital can be understood as the "features of social life – networks, norms and trust – that enable participants to act together more effectively to pursue shared objectives" (Putnam 1995, pp. 664-665 in Melo Zurita *et al.* 2018); it "allows people to trust each other, rely on each other for support and work together" (McCann *et al.* 2016) and is thus proposed as a contributor to disaster resilience and preparedness. McCann *et al.* (2016), citing several case studies representing different natural hazards, note that social capital is context specific and that different types of social capital are useful in understanding preparedness, that all types of social capital can have an important role in disaster management, and that high levels of reciprocity and trust can be correlated with higher levels of collaboration during an emergency. However, strong social capital can also reinforce discrimination or the marginalisation of particular groups (Aldrich 2012; Handmer & Dovers 2007).

The following sections of this report outline EN4R#2's research of both formal and informal learning approaches in the workplace and their contribution to changed disaster preparedness practices within SGGPCP agencies. Recognising that network meetings and informal staff gatherings are sites where social capital can potentially be built, and informal learning may occur, EN4R#2 explored how existing network meetings contributed to social capital and learning amongst SGGPCP agencies, and the role the SGGPCP might play in facilitating and enabling networking and building relationships.

4. THE PROJECT: Approaches, analyses, & findings

The project was conducted in three distinct phases. The first Phase evaluated the effectiveness of a formal learning approach and its contribution to applied learning for disaster preparedness, through two desktop-based heatwave and fire scenario workshops. The second Phase focused on the conditions that enable informal learning, networking and relationship building, by investigating four informal and formally-convened workplace networks. While the third Phase investigated informal learning through heatwave information sharing in a community context.

Different analysis approaches were applied to each of the different phases, due to the distinctive research questions addressed in each phase. The evaluation of training effectiveness in Phase One was undertaken using Kirkpatrick's Four Levels of Training Evaluation, while social network analysis was used to explore advice-seeking networks for heatwave and fire. Phase Two analysis used Janssens *et al.* (2017) conditions for informal learning, while Phase Three was thematically analysed for the changed actions that emerged, and the perceptions of the process. Each of these phases is explained below.

4.1 Phase One: Evaluation of a formal learning approach

4.1.1 The formal learning approach: A desktop scenario

Phase One evaluated the effectiveness of two Summer Readiness workshops that aimed to support applied learning for heatwave and fire preparedness among SGGPCP partners and stakeholders. These were more formal learning approaches on the 'continuum of learning in the workplace' (Figure 2, pg 8) in that they had established outcomes, an agenda and activities designed to facilitate learning. The workshops involved desktop-based scenarios for heatwave and fire and incorporated individual and group exercises, designed to engage the five principles of adult learning². SGGPCP co-designed the scenario workshops with CFA, in consultation with SGGPCP agencies. They aimed to improve awareness and understanding of heatwave and fire as it relates to participant organisations' clients and service provision, to encourage preparedness practices within the organisations, and to strengthen networks between SGGPCP agencies and stakeholders.

The scenario workshops were held in early December 2017. Invitations were distributed via email to established contacts in partner agencies and stakeholder organisations. The email explained the benefits and aims of the workshop and encouraged distribution to relevant personnel. Consultation with Partner agencies had informed the distribution list.

The first workshop was held in Hamilton (10 participants) and the second in Heywood (18 participants). Attendees were from partner organisations of the SGGPCP, as well as organisations that are not current SGGPCP partners but that are based in the area. These organisations covered a broad range of health and wellbeing services, including those providing services focusing on aboriginal health, disability, aged care, and homelessness as well as community and acute health and neighbourhood houses.

SGGPCP defined the objectives of the workshops as to:

1. Identify potential impacts of heatwave and bushfire on service delivery (on what agencies do and on the people agencies work with)
2. Identify current and potential actions to reduce impacts on service delivery
3. Understand practical actions they can implement to reduce impacts on service delivery
4. Develop new or deeper relationships with other SGGPCP member agencies or stakeholders to reduce the impact of bushfires and heatwaves on their service delivery.

² Five Principles of adult learning. a) adults need to know why they are learning, b) adults are motivated to learn by the need to solve problems, c) adults' previous experience must be respected and built upon, d) learning approaches should match adults' background diversity and e) adults need to be actively involved in the learning process (Bryan *et al.* 2009).

Evaluation data was collected during the workshops through participant workbooks (refer Supplementary Material). The workbooks were divided into two sections: Section A was the “pre-workshop” section, which contained questions about each participant’s current knowledge of their organisational policies and processes for heatwave and fire preparedness, as well as to gather information about who they would contact for information about heatwave and fire. Section B was the “post-workshop” section and contained similar questions – seeking to capture any new information from participants. Section B also provided space for participants to record the actions they would implement after the workshop, as well as a workshop evaluation exercise. Participants were asked to complete Section A on arrival at the workshop venue, before the workshop began, and at the end of each of the heatwave and fire sessions they were asked to fill in the relevant questions in Section B of their workbooks (refer below for outline of the workshops).

Both workshops were held in the morning and ran until after lunch – which was provided. During the workshop participants were seated around tables to enable small group conversations. Each workshop was divided into five sessions. The first session provided background and context to the Summer Readiness workshops, situating them within the broader EN4R project. Participants were given time to complete Section A of their workbooks if they had not completed this activity on arrival.

The second session set the scene for the desk-top scenario for the day. A1 sized maps were provided to each table, and a CFA officer led the participants through a basic orientation exercise with the maps. Participants were given marker pens and asked to mark several locations on the map, such as the location of their services, where they live, where their clients live, and the location of roads they usually traverse. Recognising that the value of desktop emergency preparedness exercises is in the discussion and networking opportunities they provide (Skryabina *et al.* 2017), participants were encouraged to converse as they were marking each of the elements on the map.

A heatwave scenario was presented by the SGGPCP in the third session. The group was asked to reflect and discuss how this heatwave situation affected their service delivery? What actions do their organisations take to mitigate the impacts on clients, staff and service delivery? Information and resources pertaining to heatwaves were also presented to the group, for example the Department of Health and Human Services Heat Health Plan for Victoria (DHHS 2015). At the end of the discussion, participants were asked to complete the heatwave questions in Section B of their workbooks before taking a morning tea-break, where they were encouraged to move around and talk with other participants and the presenters.

During the fourth session, a fire scenario was presented by CFA running through several phases from the start of the fire, spread of the fire, its change in direction, and finally after the fire has been contained. At the ‘start of the fire’, participants were asked to locate the fire on the map and to discuss its location in relation to their services and clients, and the possible impacts of the fire on clients and service delivery. What would they do at this stage of the fire, given its location relative to their clients? During the second phase – ‘the fire spreads’, CFA presented basic fire behaviour (including direct flame impacts, radiation etc.) using simple drawings on a white board. A video was played showing how quickly smoke from a bushfire can turn daytime to night. Again, participants were asked to locate the spreading fire on their maps, and given the wind direction and speed, asked to consider its likely trajectory. Discussion followed around what the changing impacts were on clients and service delivery, how were staff and clients receiving and sharing information about the fire, and who needed to be contacted. A key question at this time was around travel in the area. What were their work policies in regard to this? What preparations had been made? CFA then facilitated an interactive session on preparing emergency kits for cars and home.

The next phase of the fire scenario introduced a change in wind direction. Participants charted the changed trajectory on their maps and discussed likely impacts. In the final session of the day, to draw the focus to preparedness, participants were asked to imagine back to a year before the heatwave and fire and they were asked to reflect upon what they would have done differently, and given the time now, what would they try to change in their organisations? They were then asked to complete the fire scenario questions in Section B of their workbooks. They were also asked to list three actions they were going to commit to after the workshop, back in their workplaces.

Just before leaving, participants were asked to evaluate the workshop using a novel reflection technique. They were asked to trace around their hands and note on the traced handprint: on the thumb – what was good about the day? On the index finger – what actions has the workshop pointed to for you to do? On the middle finger, they were asked to indicate what was not so good about the day. The ring finger asked them to list the commitments they were going to make as a result of the day, while the little finger asked what links they were going to follow up as a result of the day. All workbooks were collected and data entered into an excel sheet, de-identifying participants.

In Hamilton, participants moved straight from the 'change in wind' session to the final session of the day and evaluation exercise before being served lunch, while in Heywood lunch was served prior to the final session. At both locations, participants were encouraged to mingle and talk with each other and the presenters over lunch.



To collect further data for the analysis (beyond the workbooks), semi-structured interviews were conducted approximately three months after the workshops (March 2018) with nine workshop participants (six from Heywood and three from Hamilton). These interviews explored whether participants had implemented new or changed practices regarding heatwave and fire preparedness as a result of the workshops, and if so, what the enablers and barriers were to them implementing those changes. Interviews also sought to identify other parameters of learning, such as increased knowledge, awareness and understanding. Data from both the Hamilton and Heywood workshop observations, workbooks and interviews was combined for the analysis.

4.1.2 The analysis

Learning evaluation

Formal learning can be evaluated through accepted methods and frameworks that look at the nature of the learning activity itself, the personal characteristics of the 'learner' and the organisational context for learning as well as the resulting change in knowledge, skill and behaviour. Kirkpatrick's (1998; 2016) four level approach to training evaluation in the workplace is a common framework for such an evaluation and was used to evaluate this formal learning activity. The four levels are: 1) evaluation of participants' reaction to the training program, 2) quantifiable indicators of the learning that has taken place 3) the extent to which knowledge and behaviour are applied and 4) impact of training on broader organisational goals (Kirkpatrick & Kirkpatrick 2016) (Table 1).

The Kirkpatrick model is seen by some as oversimplifying the training evaluation process and of making assumptions of causal linkages between the levels, however, it is still an extensively used framework for workplace training evaluation (Bates 2004) and therefore provides a recognised and useful framework. The updated New World Kirkpatrick Model is presented in Table 1.

Table 1: Kirkpatrick's Four Level Training Evaluation (from Kirkpatrick & Kirkpatrick 2016)

Level 1	<p>Reaction Participants' perceptions on whether the training is satisfying, engaging and relevant</p> <p>Participant Satisfaction Participant satisfaction with the training</p> <p>Engagement The degree of active involvement and contribution to the training exercise</p> <p>Relevance The degree to which training participants will have the opportunity to use or apply what they learned on the job</p>
Level 2	<p>Learning Participants' acquisition of the intended knowledge, skills, attitude, confidence and commitment</p> <p>Knowledge <i>"I know it."</i></p> <p>Skill <i>"I can do it right now."</i></p> <p>Attitude <i>"I believe this will be worthwhile to do on the job."</i></p> <p>Confidence <i>"I think I can do it on the job."</i></p> <p>Commitment <i>"I intend to do it on the job."</i></p>
Level 3	<p>Behaviour Participants' application of knowledge and skills they have learned</p> <p>Critical behaviours/actions Specific, observable and measurable actions</p> <p>Required Drivers[^] Processes and systems that reinforce, encourage and reward performance of critical behaviours on the job</p>
Level 4	<p>Results* The degree to which targeted outcomes occur as a result of the training and the support and accountability package</p> <p>Leading Indicators Short-term observations and measurements suggesting that critical behaviours are on track to create a positive impact on desired results</p>

[^] **Evidence of these were identified through interviews as enablers and barriers for applied action but were not extensively evaluated for each of the participating organisations.**

^{*}**Analysing this was outside the scope and feasibility of the current study.**

Participant workbook responses were analysed against the above framework (specifically levels 1 and 2 of the framework), while the follow up interviews were analysed against levels 1, 2, and 3 – with a focus on participants' knowledge and actions for fire and heatwave preparedness. Level 4 of Kirkpatrick's model is concerned with learning impact in the workplace which is aligned with the core function of the specific organisation. This was outside the scope of the current project and was not assessed.

Advice-seeking network analysis

Social network analysis (SNA) investigates the "structure and characteristics of networks by examining relationships between actors" (McCann *et al.* 2016; p6). The project therefore used SNA to better understand the relationships and networks of the participants who attended the Summer Readiness Workshops, in particular, who they trusted to source heatwave and fire information from, both before and after the workshop.

Network visualisation is perhaps the most appealing aspect of SNA, as the maps can sometimes quickly and clearly demonstrate a range of complex information in pictorial form. A network consists of a set of relations (or arcs) amongst a set of actors (or nodes). The network maps provide one way of examining relationships and connections of the different actors or nodes. The attributes of the nodes can be displayed in different ways denoting a range of qualities such as gender, age, organisation, and location for example. SNA can provide indications about the strength and direction of relationships. Maps can thus show actors with multiple ties (represented by lines between nodes), those that are isolated, and those that act as bridges to others outside the network.

The social network map depicted in Figure 3 shows the relationship between four actors represented as circles (nodes). The nodes can be used to convey attributes of the actors. For example, Figure 3 uses red to represent female and grey to represent male. The lines between the actors are the ties with the arrows indicating the direction of the relationship and the thicker line representing the strength of the relationship.

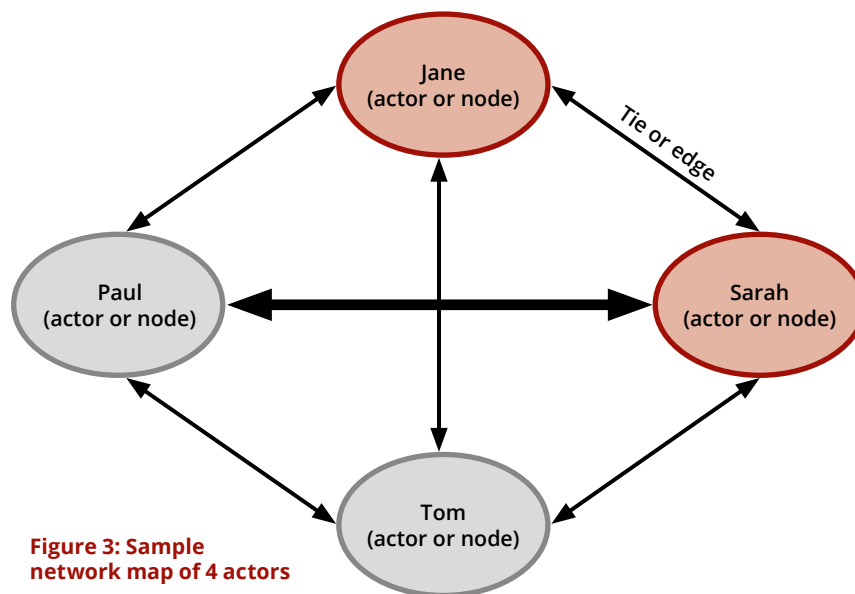


Figure 3: Sample network map of 4 actors

EN4R#1 (McCann *et al.* 2016) provides a useful introduction to SNA methodology, and its potential connection with disaster resilience.

4.1.3 Findings

Effectiveness of the formal learning approach

This form of learning activity was positively received by participants; contributed to enhanced knowledge, skill and attitude in relation to heatwave and fire preparedness; and facilitated application of the learning by participants in their respective workplaces. Each of these aspects is detailed below.

Level 1 of Kirkpatrick's evaluation framework is concerned with training participants' reaction to the workshop/learning situation. It has three components including level of satisfaction, engagement and relevance of the training to the participants' work. For the Summer Readiness workshops, there was a high level of satisfaction expressed by participants. Positive comments related to the content, the interactive and collaborative style of the workshop, and the opportunity to network and make connections. *"The information came through clearly. It was really clear about it. It was energetic, on the day"* and *"it exceeded my expectation in the ways of what I felt we were going to learn, what we were going to gain from it, the partner-shiping that was going to happen, I just didn't anticipate it to be so good"*. The main criticism of the workshop was the lack of time, feeling that there was not enough time to have deep discussion of some of the issues.

The engagement dimension of Kirkpatrick's Level 1 is concerned with how the trainer taught the information and the level of engagement of participants. The workshop was structured to be very interactive, so a high-level of participant engagement was hoped for. Participants were observed to be attentive to the trainers and to actively participate in the scenario activities. They responded positively both to the style of teaching, and the interactive nature of the workshops, with comments recorded on workbooks such as: *"well presented"*, *"interactive and very informative"*, *"good interaction"*. Interviewees supported these comments, expressing that the workshop was well presented, even had *"a little bit of humour in there, it was very good"*.

There was a more mixed response to the relevance dimension. Most participants noted that the workshop had some relevance to their role, and for some this was perceived to be obvious and direct, while for others it may be more indirect. However, some participants felt they were already across the information, so it would be good for someone else from their organisation to attend, or that they were not the 'best' person to be there. This suggests the workshop was still relevant to the service provision of the organisation, but less relevant for some of the individuals. The workshop had been co-designed with several SGGPCP agencies to enhance relevance and the invitation to attend was distributed across the network. However, these comments suggest that the invitation did not always reach the best person, and that more work to identify and attract the 'right' people, and to demonstrate relevance may be required.

Level 2 of Kirkpatrick's framework focuses on learning, broken into five related dimensions of knowledge, skill, attitude, confidence, and commitment. Seven of the interviewees noted their changed awareness of heatwave and or fire preparedness as a result of the workshop, so we have inductively added this as a sixth dimension to the framework. Knowledge change was assessed through Part B of the workbook, where participants were asked to list *additional* ways (both formal organisational processes and informal actions) their service could help clients prepare for heatwave and fire, and additional people they would think of contacting – *after* participating in the workshop. The majority of participants (24 of the 28 participants) recorded increased knowledge around how they could help clients prepare for heatwave, with most noting formal organisational policies and processes that could be changed. Slightly less (20 of the 28) indicated increased knowledge around helping their clients prepare for fire, with a relatively even mix of formal organisational and informal mechanisms. Most interviewees supported this view, with one person noting: *"so it brought information and points of view together in one timeframe, and that was good, to see some of the issues, some of the possible strategies"*. About a third of participants identified additional sources of information for heatwave after the workshop session, and approximately half identified additional fire information sources.

Throughout the workshops, participants were heard discussing their organisation's strategies, and how they considered they could be improved, exhibiting a level of confidence in applying what they had learned. This confidence was continued after the workshop, with one post-workshop interviewee noting (in relation to a fire in their area): *"to hear that on the radio, to have that understanding of what potentially was happening and how it could develop, and then the implications and how all the services would most probably be reacting to that"*.

Change in skill was predominantly assessed in relation to fire preparedness (rather than heatwave), where people were asked to interpret information about change in fire conditions, to indicate changes on the map and to discuss what this meant for their work and service. Observations showed that several people on each table actively engaged with displaying this interpretation skill, while some participants preferred to observe.

Level 2's 'commitment' dimension is expressed in Kirkpatrick's framework (2016) as *"I intend to do it on the job"*. The printed workbooks captured this information, asking participants to identify actions they were committed to doing back in their organisations, as a result of the workshop. 23 of the 28 participants identified between three to five actions, and interviews with nine of the participants indicated that these commitments had either been partially or fully implemented (discussed further below).

The third level of Kirkpatrick's evaluation framework is concerned with behaviour, which assesses changed practices in the workplace and the organisational processes and systems that enable or restrict changed behaviour. We were particularly interested in the applied learning dimension, which was interpreted as changed behaviour/ implemented actions. The second dimension, assessing processes in the individual partner organisations, was beyond the scope of the project. While Kirkpatrick suggests trainers and evaluators pre-identify 'critical attributes' of behaviour change, our research allowed for the actions to emerge from the training, to enable them to be specific to each workplace and context. Applied learning was assessed through the nine follow-up interviews, where workshop participants were asked to share what specific commitments they

had implemented in their organisation, and what other initiatives (outside specific commitments) had been undertaken that were informed by the workshop (refer Appendix 2 for list of actions identified). The most prevalent action undertaken was to assemble a car emergency kit, with at least five of the interviewees indicating they had done this. *"I'm in the vehicle and I always have water in my car rolling round in the boot. So I designated a tub and some other resources and put it together"; "So within the district nursing area we actually stepped forward quite quickly and put one [vehicle emergency kit] together"*. One interviewee even arranged for small fridges to be provided in vehicles for client visits, with things such as cool drinks and sunscreen in preparation for heatwave.

Several (4) of the interviewees were implementing 'community information or education' changes, such as mechanisms for alerting their community to extreme heat days, or organising fire-preparedness education days. *"I contacted the CFA. I've actually got a bushfire display, a coding display for here now and I've accessed some further information. We followed up with the CFA...for another information session here later in the year"*. The majority of interviewees (6) followed up by investigating, reviewing or updating organisational policies. *"....so I put my two cents worth in when developing policies, reviewing policies and stuff like that..."* and *"heatwave stuff...what I did was check our risk management policy, the broader risk management particularly that we use around events.....I drafted an extra line or twobeing more specific about extreme weather, meaning heat, heat wave planning."*

Other actions included reconsidering their personal preparedness, such as implementing personal fire kits, having conversations about preparedness with partners/family, and investigating emergency procedures in their home area.

Overall, the analysis using Kirkpatrick's framework suggests that the face-to-face, interactive, scenario-based workshop approach did strengthen individual learning for fire and heatwave preparedness for the majority of participants. The post-workshop interviews indicated that participants were able to apply some of the lessons in their organisations to contribute to heatwave and fire preparedness, and to better assist their clients. There were positive findings across all three levels assessed, from participants' reaction to the training situation, through their perceived and observed learning, and a post-workshop assessment of actions. While the workshops had hoped to also stimulate greater networking, the constrained time meant that not enough space was left for this activity. Although the small-group activities, morning tea and lunch provided opportunities for interaction, the follow up interviews suggested that participants had not yet (and did not really intend to) follow up with contacts made during the workshop. Additionally, although most participants indicated additional sources of heatwave and fire information, actually seeking information of these additional sources was not tested. Sources of fire and heatwave information were explored through SNA and are discussed below.

Advice seeking networks - Where do people source fire and heatwave information from?

SNA was employed to understand where workshop participants sought advice on heatwave and fire. Two questions were asked in Section A of the workbook, which was completed before the workshop began. They asked participants to identify whom they sought advice from in regard to preparing their clients and service for heatwaves and for fires. In the following graphs, the nodes (i.e., dots, circles) represent workshop participants and squares represent organisations. The lines connecting the nodes represent advice seeking. An arrowed line represents a nomination of an organisation as a source of advice for fire or heatwave. The SNA analysis is represented as a bipartite network which is a network that consists of two different social entities, in this case, people (workshop participants) and organisations.

Advice seeking networks for heatwave preparedness before the workshop

In the bipartite network of people and the organisations they seek advice from regarding heatwave (Figure 4) there were 24 organisations as a source of information and advice for people. The list of organisations is in Table 2. Overall, 24 people responded to this question and they made 72 nominations of organisations they would ask for advice. The number of nominations and organisations is higher in the heatwave network compared with the fire network, which is discussed

Table 2: List of organisations that people seek advice for heatwave

#	Acronym	Organisation
1	CFA	Country Fire Authority
2	SES	State Emergency Services
3	WMAC	Winda-Mara Aboriginal Corporation
4	DHHS	Department of Health and Human Services
5	VicPol	Victoria Police
6	WDHS	Western District Health Service
7	DELWP	Department of Environment, Land, Water and Planning
8	GSC	Glenelg Shire Council
9	HRH	Heywood Rural Health
10	PDH	Portland District Health
11	STAY	STAY Residential
12	Asthma Australia	Asthma Australia
13	BBNC	Balmoral Bush Nursing Centre
14	DRH	Deakin Rural Health
15	DWECH	Dhauwurd-Wurrung Elderly and Community Health Service
16	EMV Barwon	Emergency Management - Barwon
17	Gunditjumarra	Gunditjumarra
18	HBNC	Harrow Bush Nursing Centre
19	Local GPs	General Practitioners
20	SGSC	Southern Grampians Shire Council
21	SWHC	South West Health Care
22	Salvo Connect	Salvo Connect
23	WWSC	West Wimmera Shire Council
24	Wellways Aust	Wellways Australia

Advice seeking networks for heatwave after the workshop

After participating in the heatwave scenario component of the workshop, participants were asked to nominate additional people they would ask for advice in relation to preparing their service and clients for heatwave. Table 3 indicates the additional information sources listed by participants. The most common nominations were the CFA, followed by health services/hospitals/GPs, work colleagues and the local council. CFA were listed as an additional resource by six participants. This is somewhat concerning as CFA did not present on heatwave information, they were not identified during the workshops as a source of heatwave information, nor do they nominate themselves as such. Alongside this, DHHS were not nominated as a source for additional heatwave information, even though their resources were presented, and there was discussion about DHHS as being the State level authority for heatwave. This suggests the importance of an authoritative presenter in a formal learning situation. The CFA members were present in their uniforms, clearly representing an authoritative body, whereas the heatwave information was presented by a SGGPCP representative who presented information from a range of sources. Future workshops on heatwave preparedness may wish to engage a health professional, local government representative or staff member from the DHHS who may bring a representative authority to the presentation.

Table 3: Additional sources of information for heatwave

Organisation	Heatwave - # of times nominated	Organisation	Heatwave - # of times nominated
Country Fire Authority	6	Victoria Police	2
Health services/hospitals/GPs	5	Bureau of Meteorology	2
Work/Colleagues	4	VicSafety App	1
Local Government	4	State Emergency Services	1
Emergency Management Victoria	2	Other (inc. neighbours, cool places, local networks)	2
Total Additional nominations			29

Advice seeking networks for fire preparedness before the workshop

In this fire advice seeking network (Figure 5), there are 19 organisations as a source of advice, listed in Table 3. Overall, 25 people answered the advice-seeking questions before the workshop began and they made 62 nominations. The network map shows a narrower diversity of organisations from whom fire-advice is sought compared with heatwave advice. CFA was the main source of information, noting that this could refer to CFA generically or to CFA in different locations. When combined with the source of heatwave information map above, this shows the popularity of CFA as a trusted source of information for both heatwave and fire. The second most popular source of information for fire preparedness was Winda-Mara Aboriginal Corporation Inc (WMAC). Considering 28% of workshop participants who answered this question were from WMAC, it seems that they mainly seek advice from their own organisation. The third most popular organisation was the State Emergency Services (SES) which again could refer to SES in different locations. The fourth most popular organisation is Southern Grampians Shire Council (SGSC). The remainder of the organisations had at least two people nominating them as a source of fire advice with only one organisation having one person nominating it. SGGPCP does not appear in the network maps at all. This reflects SGGPCP's role centring more on connecting agencies than providing advice.

Figure 5 shows that apart from the CFA, workshop participants mainly seek fire advice from their own organisation, local or state government departments. For example, the representatives from WMAC generally seek information from WMAC as well as CFA, SES, DELWP and local government

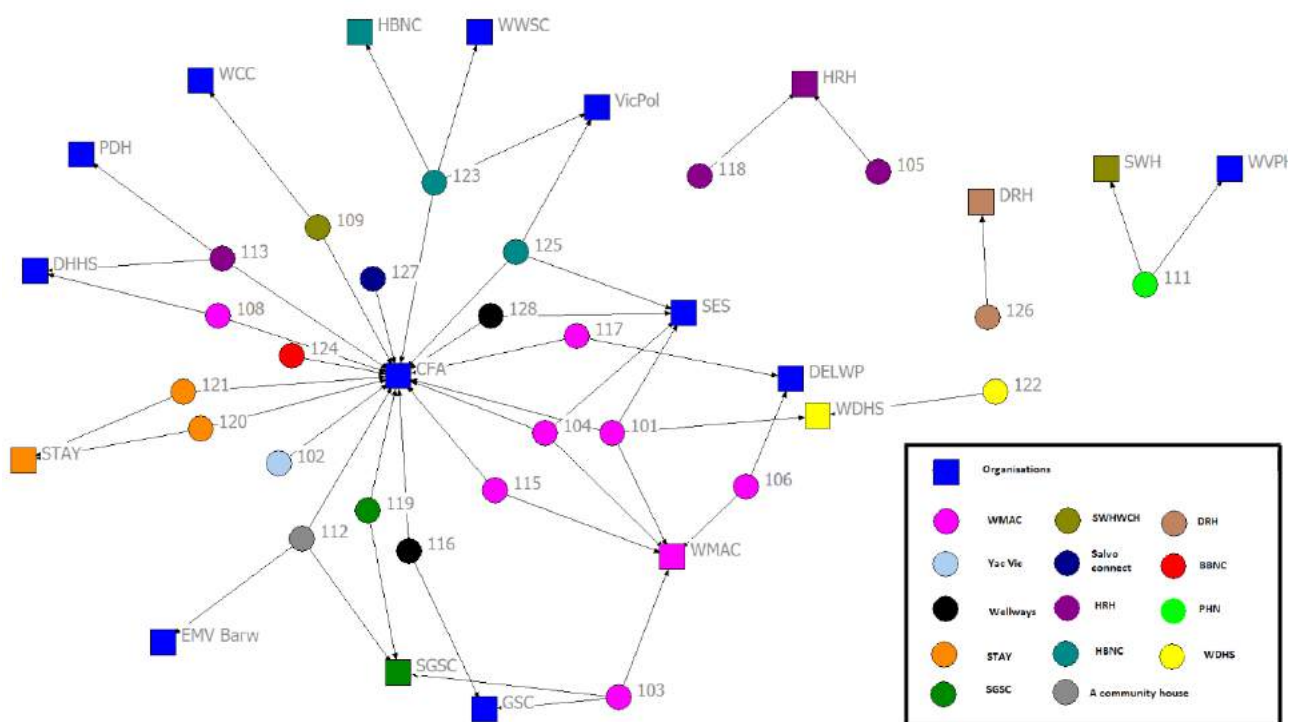


Figure 5: The bipartite network of workshop participants and organisations that they seek advice from regarding fire, before the workshop. Circular nodes represent workshop participants and square nodes represent organisations. The different organisations are represented by different colours. Organisations which did not have workshop participants are coloured blue. People are coloured based on their own organisations.

Table 4: List of organisations that people seek advice from for fire

#	Acronym	Organisation
1	CFA	Country Fire Authority
2	WMAC	Winda-Mara Aboriginal Corporation
3	SES	State Emergency Service
4	SGSC	Southern Grampians Shire Council
5	DELWP	Department of Environment, Land, Water and Planning
6	DHHS	Department of Health and Human Services
7	GSC	Glenelg Shire Council
8	HRH	Heywood Rural Health
9	STAY	STAY Residential
10	VicPol	Victoria Police
11	WDHS	Western District Health Service
12	DRH	Deakin Rural Health
13	EMV Barwon	Emergency Management Victoria - Barwon
14	HBNC	Harrow Bush Nursing Centre
15	PDH	Portland District Health
16	SWH	South West Health Care
17	WCC	Warrnambool City Council
18	WVPHN	Western Victorian Primary Health Network
19	WWSC	West Wimmera Shire Council

Advice seeking networks for fire after the workshop

Workshop participants were asked to nominate additional people they would ask for advice in relation to preparing their service and clients for fire, after participating in the fire scenario exercise. Table 5 indicates the additional information sources listed by participants. CFA features prominently, with 11 nominations of the additional 20. This is likely due to the presentation provided by the three uniformed CFA personnel, and their welcoming of people to contact them for advice and guidance.

Table 5: Additional sources of information for fire

Organisation	Fire - # of times nominated
Country Fire Authority	11
Local Government	2
Work/Colleagues	2
Emergency Management Victoria	1
VicSafety App	1
Other emergency services – generic	1
Other (inc. neighbours, cool places, local networks)	2
Total Additional nominations	20

4.2 Phase Two: Conditions that enable informal learning, networking, and relationship building**4.2.1 The informal learning approach: Network meetings as sites of informal learning**

The second phase of the project focused on informal learning. Informal learning cannot be easily measured with clearly defined stages and indicators in the same way as formal learning, as by its nature informal learning is the accrual of tacit knowledge, it is perhaps subtle, and difficult for individuals to identify (Eraut 2004; Skule 2004). Attention has therefore turned to assessing the 'conditions' for informal learning, including through social interaction and networks. Numerous

factors can influence informal learning in the workplace, including personal and professional characteristics of the individual, the nature of the organisation, as well as organisational contextual and learning factors (Kyndt *et al.* 2009; Janssens *et al.* 2017).

This Phase examined informal learning through both informal and formally convened work-related group gatherings and network meetings (collectively referred to from here as ‘network meetings’). Network meetings were identified by the project team as discrete areas of interpersonal interaction and networking and therefore potentially facilitators of informal learning. It aimed to understand the nature of network meetings, to determine if they provided conditions that enable informal learning to occur. To do this, the project identified three network meetings to examine through case studies, and a fourth network meeting to study through a focus group. These ranged from formally convened work-related network meetings, to informal staff morning-tea gatherings (Table 6). Semi-structured interviews were conducted with four to five people from each of the three network meetings (13 people were interviewed) to identify the nature of the meeting, who attended, how the group operated, issues around emergency information, benefits of attending, and the enablers and barriers for the group meeting.

Finally, a focus group was conducted with a fourth, formally-convened network group to test some of the themes emerging from the interviews, and to generate ideas on the role SGGPCP might play in enabling networking, relationship building and informal learning for disaster preparedness.

Table 6: Network meetings

Network Meeting	Formally convened or informal network	Description
A	Informal	Remote health and community care organisation. The network meeting is a daily morning tea open to all staff across different departments and levels in the organisation.
B	Informal – but changed to become semi-formal over time	The network meeting is a ‘semi-regular’ (monthly to quarterly) morning tea between three organisations. The aim is to develop relationships between staff in the three agencies, with a view to better understanding each other’s organisations and roles.
C	Formally convened	A multi-organisational network meeting that aims to coordinate responses to impacts on the community, from health, through to financial and environmental impacts and responses.
D	Formally convened	Multi-organisational network meeting with a focus on building community capacity through a systems thinking approach to address a particular health and social issue.

4.2.2 The analysis

In a meta-analysis of informal learning conditions in the workplace, Janssens *et al.* (2017) identified seven main conditions likely to facilitate informal learning: 1) cooperation, 2) evaluation, 3) feedback, 4) reflection, 5) knowledge acquisition and access to information, 6) coaching and 7) job control and job demands (Table 7). This framework was used to assess whether the conditions for informal learning were present in the network meetings EN4R#2.

Table 7: Main conditions for informal workplace learning (from Janssens *et al.* 2017)

Conditions for learning	Description
Cooperation	Indicators of cooperation include asking for advice, listening, observing, discussing problems, consulting colleagues, sharing ideas and learning from the experience of others, ability to rely on others and seek help if needed.
Evaluation	Opportunities for evaluation occur through learning from experience, both positive and also learning from mistakes, and through repeated problem solving in different work situations and acquiring more knowledge about the job.
Feedback	Feedback in the workplace can be both cognitive – direct feedback from superiors or colleagues, and motivational – that is, enhancing performance through motivating feedback

Reflection	Opportunities for self-reflection on work actions (may be closely linked to evaluation and feedback conditions above, but not necessarily)
Knowledge acquisition & access to information	Providing opportunities to access information, including accessing networks where knowledge exchange can occur.
Coaching	Coaching has been seen to transform implicit knowledge into explicit knowledge
Job control & Job demands	*Outside the scope of this research

The interviews with network meeting members were first analysed using nVivo to identify key themes (patterns) – including the benefits, enablers and barriers of networking and relationship building in each particular context. These were then further analysed against Janssens *et al.*'s (2017) main conditions for informal learning to determine which conditions were present in the identified networking situations for the PCP agencies. Investigating job control and job demands (listed in the final row of Table 7) in the different partner agencies was outside the scope of this research.

4.2.3 Findings

Janssens *et al.* (2017), suggest that conditions for informal workplace learning are enhanced through: cooperation, evaluation, feedback, reflection, knowledge acquisition and access to information, and coaching. Network member statements suggest that the network meetings studied through this project generally provided conditions that enabled informal learning for their members, except for the element of 'coaching', which was less clearly demonstrated. Network members also stated that the network meetings were good for building relationships that could be relied on and called upon if required, and for sharing information. Emergency information was shared and discussed, and emergency actions evaluated and reflected upon, so these network meetings could potentially be utilised as sites of disaster preparedness information sharing, although they were not currently seen as such. The following section details how the network meetings provided these 'enabling' conditions.

Janssens *et al.* (2017) note that indicators for cooperation include asking for advice, listening, consulting colleagues, discussing problems, sharing ideas and learning from the experience of others, and the ability to rely on others and seek help if needed. Two of the three network meetings, as well as the Focus Group participants, indicated strongly that their network meetings enabled cooperative conditions. Members of Network A and C expressed that they learnt from the experience of others in the group, listened and shared ideas. The network meetings provided a forum to discuss issues collectively, to hear information from a trusted source, and to consider things from a different perspective. *"You're sharing information. [ABC] may share information that I need to feed out to my social support group"* and *"By bringing them all together, you get that cross pollination"*.

Interviewees also noted their network meeting groups explicitly facilitated coordination: *"that they would actually be networked enough to then start to either self-coordinate or coordinate through this group at those times"*. Focus Group members reiterated the cooperative elements inherent in their network meeting. While network meeting B noted the value of information sharing and learning from the experience of others, the evidence was less conclusive that was currently occurring in the meetings.

Network meeting A highlighted the importance of the group in helping to solve problems and that the group members could be relied upon for assistance. This was recognised from a client-focused and work perspective, as well as from a more personal perspective. *"I think it's somewhere where you feel pretty supported and able to - well, I always feel able to bring, if there's something worrying me or something that's not right, I'll bring it to someone's attention."*

Underlying Network A and C's indicators of cooperation was an understanding of the value of building relationships and of respecting and trusting the professional nature of the group and of its individual members, *"The information I get from those individuals, I tend to trust more, than what I*

read in the newspaper or hear on the wireless". As well as professional respect, personal relationship-building was also present. It was noted that knowing individuals in other agencies provided a link in to that agency, whether it was to seek information for a client or a program, or to just find out who was the best person to contact in a given situation. Relationships enabled collaborative projects to emerge, as well as collaboration between different projects. The face-to-face nature of each of the networking meetings was valued for helping to build relationships, while at the same time recognising that digital engagement was necessary to overcome issues of time and distance (see 5.2 Barriers and enablers to networking).

Janssens *et al.* (2017) argue that informal learning is also facilitated through evaluation, feedback, and reflection. Opportunities for evaluation occur through learning from experience, both positive and negative, and repeated problem solving (Janssens *et al.* 2017). While reflection is closely linked with evaluation, it does not necessarily incorporate the judgement component inherent in evaluation. All network meetings identified that evaluative opportunities had occurred through their meetings: *"you would discuss things that happened, or maybe different ways of approaching things" and "have a chat about what's working, what's not working, et cetera."* Opportunities to reflect were also identified, for example: *"[the group] discussed, "Okay, what's happened? How is this impacting on those affected in the broader community? What have we learned from it?"*

An underpinning condition for informal learning is knowledge acquisition and the access to information, including accessing networks where knowledge exchange can occur (Janssens *et al.* 2017). All network meetings, as well as the focus group, demonstrated that their groups provided access to new information and knowledge. This could be project related, community related, or even on a personally-relevant matter. Interviewees and focus group members expressed that it was valuable for them that the information came from different sources, was relevant for them, and gave them a new perspective. One interviewee noted that the group discussion enabled them to view community issues from an economic and health perspective, rather than from their traditional emergency management perspective. Typical comments from the interviewees included: *"you usually walk out and you've learnt something or you've found out some information that is useful"* and *"you are swapping information and collecting information that you're going to hand on probably to clients here or family members or anyone in the community. So, it's a really good learning opportunity."*

One of Janssens *et al.*'s (2017) conditions that did not appear to be met by the network meetings was that of 'coaching'. This is not surprising, as coaching in a work environment generally represents a more formal "one-on-one" process where implicit knowledge is transferred to explicit knowledge through the coaching relationship (Bowerman & Collins 1999), and is often closely related to the job-specific learning outcomes (Janssens *et al.* 2017) rather than the informal learning studied through the network meetings. Although the network meetings had representatives from different levels within organisations, including senior management, clinicians, community practitioners and administrative staff, nobody was nominated to assume a 'coaching' role for the group or group members. In the semi-formal network meeting C the Chair provided a high-level framework for discussion, however it was a group-moderated discussion and no formal coaching role implied. This suggests an opportunity for SGGPCP to investigate further coaching or mentoring opportunities across the PCP agencies.

Members of each of the network meetings noted they were 'informal', 'relationship-building', 'information sharing' forums. Importantly, they were valued by those who participated regularly. Where the format of the meeting changed, or there were significant staff changes, the network meeting did not seem to function as well, and thus was not as successful at providing the conditions for informal learning. Although emergency or 'disaster' information was shared at all network meetings at some time, it was not the main reason they were convened. Rather, these forums provided the connections to other people and organisations with the perceived knowledge or support that could be drawn upon during times of emergency. They were thus less a forum for direct information and knowledge exchange about preparing for emergency, as an enabler for preparedness through their connections.

4.3 Phase Three: Informal learning through information sharing in a community-based activity

4.3.1 Assessment of an informal, community-based learning activity: “Pass the Hot Parcel”

Phase Three was a community-based case study, drawing on a ‘pass the parcel’ methodology that SGGPCP had used on two previous occasions (see the Balmoral Fire Connect project (Aboutalebi Karkavandi, *et al.* 2017) and the Merino household energy efficiency project (Brown 2013). The ‘pass the parcel’ approach involves handing packages of information around the community using a chain referral method (Heckathorn 1997). So, each participant recruits another person from their network to ‘pass on the parcel’ of information.

The method was employed in the small rural community of Merino, with the aim of increasing awareness of heatwaves and actions to mitigate their personal impacts. Ten cooler bags each containing six information packs were disseminated throughout the community using the pass the parcel approach. Informed by the Balmoral Fire Connect Project, each pack contained four items, including specifically local content. Thus, each pack (Figure 6) consisted of a water bottle cooler, a room thermometer, a heatwave brochure as well as simple instructions (Appendix 4) and a form to collect demographic data (Appendix 5) which was sealed in an envelope to protect participants’ privacy and left in the bottom of the cooler bag.



Figure 6: Pass the Parcel heatwave information pack

The first participant took their pack from the cooler bag, completed the data form and passed the cooler bag with remaining packs onto the next participant. The process was completely random, with participants free to choose the next recipient of the parcel (cooler bag). Once the cooler bags were empty of packs, they were returned to the Merino Community Health Centre (MCHC) along with the sealed data collection forms. Participants were selected randomly to win the cooler bags as prizes to acknowledge their participation.

To understand the impact on community awareness and behaviour change around heatwave through the process of passing a parcel of heatwave information around in the community, participants were invited to participate in a survey and focus group post project. The survey attracted 13 respondents and sought to understand the reach of the project as well as actions taken as a result of participation. The focus group had 12 participants and delved more into the process of passing the parcel.

4.3.2 Findings: Informal learning in a community-based activity

The 'pass the parcel' approach appeared to be an effective way to stimulate awareness and applied learning for heatwave preparedness amongst community participants, with nearly all survey respondents and focus group participants identifying changed heatwave preparedness activities as a result of receiving the 'pass the parcel' pack.

Forty-five people participated in the 'pass the parcel' approach in Merino including 31 females and 14 males. Participants ranged in age from 38 to 81 years with an average age of 61 years. Twenty-eight participants lived alone with 21 reporting living with a medical condition. Only 26 of the 45 participants were regular users of the MCHC, thus extending the reach of MCHC to 20 potential new users. Surprisingly the parcels journeyed beyond the immediate Merino area travelling as far away as Melbourne (350km), Hamilton (50km), Dunkeld (90km) and Port Fairy (120km).

Survey respondents were asked to indicate the items in the parcel that most interested them, with the majority finding the water bottle cooler most useful. Participants of the focus group found the heatwave brochure to be the least useful stating that it was "too wordy", with small font and few pictures to capture and maintain their interest. Members of the focus group had only recently started making use of the room thermometer, using it more to check the comfort of their room in the cooler parts of the season but discussed how they would potentially make better use of it on the hotter days.

The survey asked respondents if they did anything *differently* as a result of receiving the parcel (Figure 7). The majority of respondents reported hydrating more, using the water bottle cooler and managing heat in the home by drawing blinds during the day and opening windows at night. It was pleasing to see that no one responded that they didn't usually take action to reduce the impacts of heatwave.

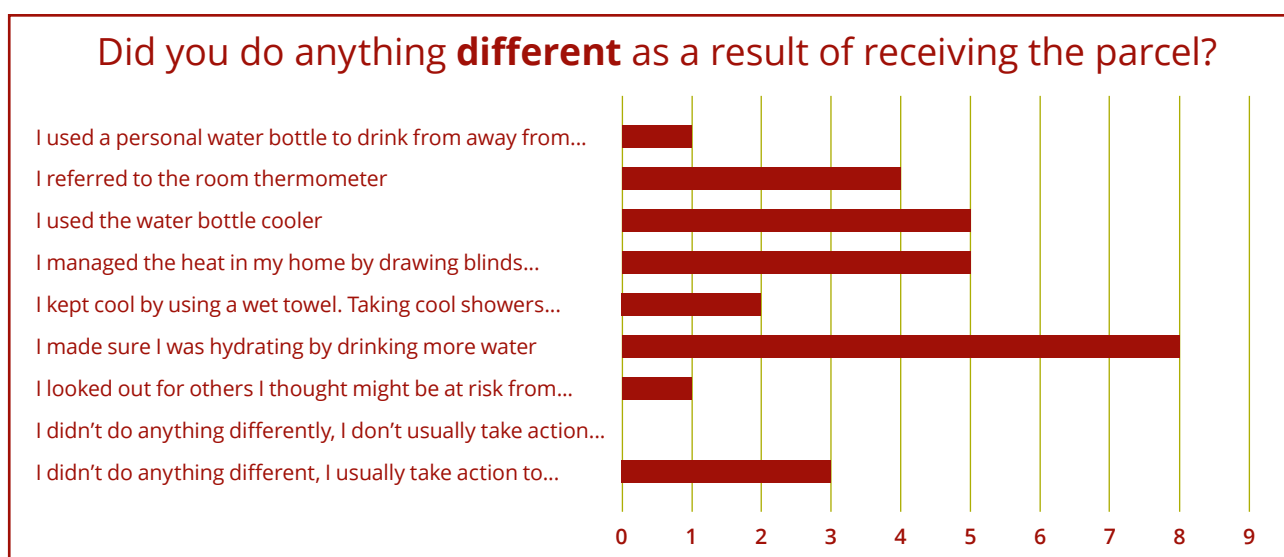


Figure 7: Changed actions as a result of receiving the parcel

The participants at the focus group commented that they were surprised to read the heatwave statistics that were presented in the introductory letter and that to them heatwave was a natural part of life. This led to a discussion of vulnerability to heatwave, with many discussing changes they had actually started to make to reduce their vulnerability, particularly as they grew older. They were all aware of passive ways to cool their homes and only a few relied on air conditioning, although all were grateful for their air-conditioned cars.

The focus group participants reflected that the process of passing a parcel in the community was a novel way to share information. One participant noted that the process provided an opportunity to learn in a number of ways, reading the material, using the materials and having conversations with others. In one data collection sheet, when asked who the next recipient of the parcel was, the participant noted it was "end of game". The focus group participants reflected that passing the parcel was an easy way to share information and a timely reminder about heatwave and much easier to engage in than attending a workshop or education session.

5. DISCUSSION: Enablers and barriers of applied learning and networking for disaster preparedness

5.1 Barriers and enablers to applying lessons in the workplace

There are multiple influences on whether, and how, learning may be applied in the workplace. These cover individual (psychological and physical) influences, organisational influences (structure, process, and culture), as well as the learning situation and these influences are not mutually exclusive (Kirkpatrick & Kirkpatrick 2016). The interviews with Summer Readiness workshop participants identified enablers and barriers across these intersecting influences. The most prominent barrier to applying learning about preparedness in the workplace was “lack of time”, but particularly associated with elements of prioritisation and personal motivation: *“We’ve got so many things we want to do and action”*. Some interviewees noted that while they were motivated to take action on leaving the Summer Readiness workshops, they got back to their workplaces and forgot their action lists or had to divert their attention to other priorities. Only one interviewee reflected that the motivation to act needed to be linked to an ‘imperative’ to act – such as a fire in the area (which occurred for some workshop participants), *“But I also think that sometimes people think ‘oh do we really need to be doing this now?’”*.

A second barrier to preparedness action was around resourcing, and this covered both direct costs *“in this case, cost is a barrier for us”*, and also access to effective communication technology. In remote areas mobile phone coverage can be intermittent. Satellite phones or even smart phones on the Telstra network located in all vehicles would improve communications before and during an emergency, *“and [another barrier is] access to the technology on a small scale”*. Interviewees from larger organisations did not mention cost-pressures as an important barrier for them applying lessons about disaster preparedness. For them, barriers to applying learning about preparedness were centred around organisational processes, whether this be slow processes of policy and procedure change, or restrictive feedback loops that don’t facilitate communication of training through the organisation. One interviewee noted that it was a challenge to get the *“right people in the room”* to be able to discuss, approve, and enact change.

A common enabler of applying learning was individual motivation to act *“it gave me both the impetus and the evidence to get those things done”*. Part of this could be attributed to clearly articulating short, simple actions to take back to the workplace. For example, listed and implemented actions included practices changed on an individual level (such as developing an emergency kit for the car), but there was also organisational practice change (such as discussing emergency car kits with clients, communicating differently about heatwave and fire warnings, altering organisational policies and procedures). And these actions were taken across both small and large organisations. One interviewee noted that the training provided them with the information to advocate for policy and procedure change in the organisation.

What also emerged was the importance of discussing the workshop with colleagues and reflecting on the lessons that were relevant for their situation – either with those who also attended or sharing the experience later with colleagues back in the workplace, *“then we talked about it when we drove back in the car”*, *“in our organisation we’ve been discussing about kits and implementing kits across the organisation”*. Janssens *et al.* (2017) note that reflecting on actions and information is an important condition for learning. Some interviewees noted that they had discussed the workshop and that it had *“helped them digest”* the information that was presented on the day.

Additional enablers of applying disaster preparedness learning included a supportive manager, who not only listened to the lessons that emerged from the training for the participant, but then escalated that through the appropriate channels internally. The timing of the training was also perceived as predominantly an enabler (although one participant noted it would have been better to have occurred in September/ October), as fires and heatwaves occurred in the region soon

afterwards, and participants stated that they were able to reflect on their learning and their services' level of preparedness. The opportunity to access the heatwave and fire preparedness information in a relevant format is itself an enabler (Janssens 2017; Kirkpatrick & Kirkpatrick 2016). Some participants were observed taking handouts on the day, while two interviewees noted they had followed up with agencies such as the CFA.

5.2 Barriers and enablers to networking

Networking specifically for disaster preparedness was not assessed, rather, established network meetings were assessed to determine if they provided the conditions for informal learning. Similar to 'applied learning' detailed above, barriers and enablers to networking can be categorised at the individual level and the organisational level. Overwhelmingly, 'lack of time' (linked to issues of prioritisation) was stated to be the biggest barrier to networking. Comments included: *"who goes to the meeting is often determined by what other things are going on in the office at the time"*, *"I haven't been to every single [network meeting], because there'll be a lot of things in my diary that take precedence so to speak"*, *"the only times I've missed it is when I just have too much to do"*. Prioritising network meetings intersects with issues of perceived value – if there is a lack of perceived value for the individual, then the network meeting falls lower down the list of priorities *"if I don't personally value that and believe that I am going to gain benefit from it, I'm not going to fully engage in it"*, while a high perceived value is a strong motivator and enabler of networking *"if you can see value in it and there's some benefits you're getting out of it, you will go"*. Organisationally, metrics such as key performance indicators do not recognise and value networking, which led one participant to note that it can therefore be seen to be a waste of time. For one network meeting, this organisational 'lack of valuing networks' led to a change in the way the meeting was structured and its purpose, which appeared to reduce the individual value for some, *"we had a new Director come in....I don't think [they] understood the value of what was occurring so a work plan was put in place"* which led to network members feeling *"they don't see the value-add anymore because it's different, it's quite directed at what we need to change and what we need to do now"*. Conversely, for those who felt their organisations valued relationship building and networking, this culture facilitated their attendance at network meetings, *"there's always encouragement for somebody to represent the centre at the meetings"*.

Another barrier was around the consistent use of communication technology. It was noted that online communications platforms can be useful for ongoing networking, but there was currently inconsistent use of such platforms between agencies, due to the lack of capability and perceived lack of willingness to use the technology. This barrier was therefore connected strongly with the geographic distance that participants had to travel to engage in network meetings *"the tyranny of distance is one of the biggest barriers to participation with other organisations"*. Participants also recognised that a network meeting needed to be coordinated – and without an individual taking responsibility for doing this, the meeting became haphazard, lost momentum and consequently lost perceived value.

The network meetings were considered a good forum for new staff to connect across different organisations, to find out "who's who", and conversely for established network members to meet new staff in an organisation. However, participants identified that significant staff turnover in the network member organisations was an additional barrier to the network's function. Network meetings were perceived to be valuable at helping to build relationships and trust between individuals and organisations – high personnel changeover interrupted this process of building trust, and thus the perceived value of the network meetings.

Conversely, there were many things that contributed to a perception of value from a network meeting, and thus an enabler. The most prominent was associated with the notion of trust – trusting the individuals in the room, feeling that one is supported, and that the environment is a 'safe place'. Comments included: *"..and you're supported"*, *"whatever's said there stays there"*, *"feeling comfortable and you can trust people to be in that space and not be ostracised or criticised"*. At the individual level, the network meeting provided value by helping the individual build 'touchpoints' in

other organisations, that may specifically help them in their role at some point and could help them with service provision to the community, *“there has to be something you’re getting in return, there has to be a value to it”*.

On a more operational level, several people noted that coming together over lunch or for a cup of tea was a motivator, *“so a lunchtime meeting is an easy one to get to”* as it mitigated the lack of time barrier somewhat.

6. RECOMMENDATIONS: Opportunities for SGGPCP

Across both Stage One and Stage Two of the EN4R project, SGGPCP was seen as a ‘connector’ and ‘facilitator’ of information exchange and learning opportunities between the agency partners. They were not expected to be sources of expert information on heatwave or fire. However, within the network meetings where they were active, SGGPCP participants were considered professional and trusted members. They therefore can potentially play a role in facilitating learning for disaster preparedness throughout the SGGPCP network. The recommendations detailed below were either identified directly by interviewees and focus group members or result from identifying ways SGGPCP may reduce or minimise barriers, at the same time as enhancing enablers for applied learning for disaster preparedness.

6.1 Applied learning

Formal learning situations: Organising formal learning opportunities or ‘professional development’ for community and health sector workers and bringing topic experts to the region was seen as an important role for the SGGPCP. Well-formulated learning situations that are interactive and relevant for participants’ work roles can lead to changed practices within SGGPCP partner agencies. By providing these opportunities to partner agencies, SGGPCP not only enhances specific knowledge and skills, they also can provide the opportunity for information sharing and networking between partner agencies. Even though time is a premium commodity, formal learning situations should provide time for discussion and interaction between participants.

The Summer Readiness workshops were co-designed with three partner agencies and CFA, and which was thought to have improved the final workshop design. Future learning opportunities should build on this model, and work with agencies to co-design learning opportunities.

It was noted that some people heard about the Summer Readiness workshops by accident. An open invitation to the workshops had been provided to agencies to share around the workplace, but this did not appear to happen in all instances. Recognising SGGPCP had used established relationships to not just advertise the workshops, but to also connect with agencies to encourage participation, there needs to be exploration of communicating future learning opportunities in diverse ways.

Communicating lessons learned: One barrier to applied learning was identified as lack of ‘feedback loops’ within partner agencies to effectively share lessons from formal learning activities. SGGPCP distributed “Projects on a Page” to participants, which summarised the workshop experience. However, to encourage greater sharing of ‘lessons learned’, such approaches may need to be expanded or reworked to specifically target senior management in partner agencies with a focus on the lessons their staff have learned. SGGPCP may also want to promote the outcomes of training or professional development opportunities more widely through their established channels (such as Facebook and newsletter) or consider innovative communication mechanisms such as podcasts.

The workshop design itself can also be used to facilitate communication of key lessons and broader application of learning. For example, a process can be introduced at the end of a workshop which encourages reflection and facilitates participants to identify the steps they may need to take to apply and communicate the lessons from an activity back in their workplace.

Leading by example: SGGPCP is recognised as a small, relatively agile entity that is not as risk averse as some larger organisations (such as local governments and hospitals). They have previously demonstrated their application of new, innovative approaches to community and health sector issues (refer SEACchange and GenR8 change initiatives where community-based systems dynamics have been used to understand the complexity of the issue and identify parts of the systems where they can affect change). Continuing to develop and apply their skills and capacities to facilitate and encourage new, community-centred and community owned approaches to disaster resilience in the sector contributes to broader sector learning. This may be achieved through engaging the same systems-based approaches used in SEACchange and GenR8 change to the topic of community resilience, or exploring other new approaches to trial.

6.2 Networking and relationship building

Communicating value – sharing stories: For network meetings to be of benefit to participants, they need to be perceived as valuable – by both the individuals and their organisations. SGGPCP could play an important role in communicating the value that emerges from network meetings. The regular newsletter distributed by SGGPCP was seen as an important tool for disseminating information, it could also be a tool for sharing ‘short stories’ of the value that can emerge through network meetings. Other channels such as SGGPCP’s existing website and Facebook page, or possibly even through developing short podcasts may be an option.

Skill and opportunity sharing: SGGPCP is a small organisation, with finite resources. However, it has good skills in developing and securing grant funding (as seen by successive rounds of EN4R funding). SGGPCP might explore applying these skills in collaboration with Partner agencies to overcome some of the barriers or enhance enablers identified previously. They might also explore using funds to bring experts to the area or to perhaps facilitate a collaborative, shared communication platform between agency members.

Coordination outside the PCP network: SGGPCP have a recognised ‘coordination’ and ‘information dissemination’ role within the Southwest community and continuing this coordination role outside SGGPCP is encouraged. SGGPCP already works to enhance relationships with the research and policy sector, regularly identifying opportunities to create partnerships. Locally, SGGPCP works to broaden its engagement beyond traditional health agencies to help achieve the aim of promoting thriving communities. The Summer Readiness workshops demonstrated this with 50% of attendees representing non-SGGPCP member agencies.

Continuing this coordination role may include consideration of broadening SGGPCP’s membership base or facilitating deeper connections outside the Partnership. This may be through engagement in events and formal learning opportunities (discussed above), or through engagement in other networks, and other communication channels.

Bringing people together: Although time and distance are significant barriers to networking, all interviewees agreed that meeting face to face was beneficial and provided the best opportunities for relationship building and networking. There may be opportunities for SGGPCP to extend or connect with existing events and deepen relationship-building opportunities. This may be through specific professional development and learning opportunities (identified above), or existing events such as White Ribbon lunches and Harmony Day celebrations. They might also consider rotating the locations of some of the network meetings and other learning activities to reduce travel times and distances for key partners.

Connecting with community: SGGPCP was recognised as being very strong at connecting agencies to one another, so questions arose around whether these skills could be used to facilitate connection to (and between) different parts of the community in the area of disaster preparedness and resilience. This recommendation connects closely with SGGPCP ‘Leading by example’ as outlined above.

Coaching: The area of disaster resilience is a new area for many health and community sector workers to be incorporated into their practice. While the relationships built and information shared through networking meetings are vital for contributing to resilience, helping to make the tacit learning more explicit may be useful. SGGPCP may wish to trial a coaching/mentoring program, building on relationships that emerge through network situations.

7. CONCLUSION AND NEXT STEPS: Knowledge sharing

This study focused on formal and informal approaches to applied learning for heatwave and fire preparedness in a Primary Care Partnership of community and health sector workers in rural Victoria. Earlier work with this sector revealed that building longer-term climate resilience means not only preparing for heatwaves, fires and other natural hazards and extreme weather events (or shocks to the system), but also preparing for stresses caused by climate change that might be environmental, economic or social (Rowe & Thomas 2008). Rance et al. (2015) found that social vulnerability in rural communities is likely to be exacerbated by climate change, and that understanding how to proactively prepare for the impacts of climate change and building the capacity of the community and health sectors was just one part of a larger spectrum of work to build climate resilience. Preparing for disasters is therefore just one small piece of the larger effort required to build climate resilience in rural communities. The following steps outline how SGGPCP will share the lessons from this project with other PCPs and more broadly.

7.1 Sharing with other PCPs

A scan of current priority areas for the PCPs throughout Victoria identified that there are a limited number of PCPs that clearly identify climate change or community resilience as a priority. Of the 28 PCPs across the state, seven PCPs have identified priority areas that enable work in climate change and disaster resilience (highlighted in blue in Table 8). The remaining PCPs do not have a direct strategic correlation to climate change or community resilience, however the literature indicates links to health and wellbeing from impacts of climate change including references to family violence; mental health issues; fresh water shortages in some rural or remote areas; food insecurity; socioeconomic disadvantage; and displacement of populations (Horton & McMichael 2008; Hughes & McMichael 2011; Parkinson & Zara 2013).

SGGPCP has highlighted the value of the PCP platform in climate change and disaster resilience work. Therefore, involving more PCPs in community disaster resilience could help enhance the resilience of communities to climate change impacts and extreme climatic events. SGGPCP will use two levels of engagement to communicate the processes and results of EN4R#2 with Victorian PCPs.

- Level 1: For those PCPs already engaging in some disaster resilience and climate change work SGGPCP will disseminate project results and build connections with the PCPs using a choice of either more formal processes or informal processes as described in Table 9
- Level 2: Communication of results to all PCPs by distributing the project report.

Table 8: PCP priority areas

PCPs	Priority areas	Action Level
Barwon South West Region		
Southern Grampians Glenelg Primary Care Partnership	Prevention of harm from alcohol and other drugs; Community Resilience through Climate Change Adaptation; Healthy eating and active living	Level 1
South West Primary Care Partnership	Fight For Your Life Suicide Prevention Strategy; Healthy South West; Access and Equity	Level 2
G21 - Geelong Region Alliance	Environmental; Sports & recreation; Transport; Health & wellbeing; Planning & services; Education and training; Economic development; Art & culture.	Level 1
Eastern Metropolitan Region		
Inner East Primary Care Partnership	Prevention and population health; Early intervention & integrated care; Working with communities; Aboriginal health and wellbeing	Level 2
Outer East Health and Community Support Alliance	Prevention of violence against women; Alcohol Misuse; Mental health; Healthy eating & Food security	Level 2
Gippsland Region		
East Gippsland Primary Care Partnership	Healthy Eating & Oral Health; Physical Activity; Mental Health: violence against women, drug and alcohol	Level 2
Wellington Primary Care Partnership	Mental wellbeing; Gender equality; Healthy living; Climate change	Level 1
Central West Gippsland Primary Care Partnership	Prevention; System Integration; Family Violence	Level 2
South Coast Primary Care Partnership	Health & wellbeing; Healthy eating and oral health; Reduction of SSB & increased water; Family violence	Level 2
Grampians Region		
Wimmera Primary Care Partnership	Reduce Harmful Alcohol and Drug Use; Tobacco Free Living; Healthy Eating and Active Living; Sexual and Reproductive Health; Preventing Violence and Injury; Improving Mental Health; Other Health Programs	Level 2
Grampians Pyrenees Primary Care Partnership	Communities of Respect and Equality; Healthy eating and oral health; Sexual and Reproduction Health; Mental Health; Integrated Health Promotion and Prevention Network; Climate Change	Level 1
Central Highlands Primary Care Partnership	Healthier eating and active living; Tobacco-free living; Reducing harmful alcohol and drug use; Improving mental health; Preventing violence and injury; Improving sexual and reproductive health	Level 2
Hume Region		
Lower Hume Primary Care Partnership	Aboriginal Health; Chronic Care; Prevention	Level 2
Goulburn Valley	Community Connections; Health for Life; Quality Connections	Level 2
Central Hume Primary Care Partnership	Health & Wellbeing Programming; Family Violence Prevention; Prevention of Obesity and Chronic Conditions; Systems Integration for Wellbeing Outcomes ; Aboriginal & Torres Strait Islander Health; Heath and Active Ageing; Mental Health	Level 2
Upper Hume Primary Care Partnership	Prevention; Systems Integration ; Family Violence	Level 2
Loddon Mallee		
Loddon Mallee Region Primary Care Partnership	Early intervention and integrated care; Consumer and community empowerment; Prevention Promotion	Level 2
Southern Mallee Primary Care Partnership	Building Inclusive and Resilient; Communities; Strengthen Partnerships, Voice of rural communities; Strengthen access, equity and integration	Level 1

Bendigo Loddon Primary Care Partnership	Prevention: Physical Activity, Mental Health, and Family Violence; Early Intervention and Integrated Care, Empowerment	Level 2
Campaspe Primary Care Partnership	Service Integration; Prevention; Inclusion; Aboriginal Health; Volunteering	Level 2
Central Victorian Primary Care Partnership	Mental Health; Social Inclusion	Level 2
North and West Metropolitan Region		
Health West Partnership	Partnership and collaboration; Building evidence and sharing knowledge; Advocacy and support	Level 2
Hume Whittlesea Primary Care Partnership	Integrated design and delivery; Responsiveness and Effectiveness; Collaboration, Evidence and innovation; Consumer Involvement; Prevention in practice	Level 1
Inner North West	Leadership; Partnership; System Strengthening; Advocacy and Influence.	Level 2
North East Healthy Communities	Healthy communities; Prevent illness and harm; Promote access and equity.	Level 2
Southern Metropolitan Region		
Southern Melbourne Primary Care Partnership	Family violence; Social connection; Substance misuse; Physical activity; Healthy Eating	Level 2
The South East Primary Care Partnership	Climate change resilience; Obesity prevention; Mental health; Vulnerable & diverse communities; Healthy workplaces; Early intervention & Integrated Care; partnership	Level 1
Frankston/Mornington Peninsula Primary Care Partnership	Aboriginal Health; Ageing Well; Chronic Disease; Mental Health; Vulnerable Children and Families	Level 2

Table 9: Methods to communicate the processes and results of EN4R#2

Level 1
Formal
<p>Mini Summer Preparedness Workshop Work with the PCP and their local CFA to facilitate a local “mini” version of the Summer Preparedness workshop.</p> <p>Formal presentation of results to a PCP group Present learnings from the project through presentation to PCP and member agencies.</p>
Less Formal
<p>Pass the Parcel Passing a story book of the EN4R#2 project around in the PCP Partnership with a chance to add comments and reflections. The person that receives the parcel (book) reads the book, documents their reflections and passes the book onto someone from another service, this continues until the due date and the parcel is returned to the PCP.</p> <p>Morning tea/lunch discussion Informal discussion about the EN4R#2 project. This may include a “out of the box” prompt box to guide discussion and to add to the informality. Out of the Box: A number of items in the box, each person takes one and talks about what that item means to them, their service, and their community. Items related to extreme climatic events.</p>
Level 2
Formal
Communication of results through PCP network meetings and bulletins.
Less Formal
<p>Online media communication The EN4R#2 report will be housed online on SGGPCP website and shared throughout the VicPCP network</p>

7.2 Sharing beyond PCPs

The NSDR (COAG 2011) has a focus on shared responsibility for resilience noting that “disaster resilience is the collective responsibility of all sectors of society, including all levels of government, business, the non-government sector and individuals” (Pg4) and to this end it is important that the results of EN4R project be shared widely beyond Primary Care Partnerships. The PCP platform, given the relationships with the community and health sector and linkages with government, is well placed to inform and collaborate widely to increase community resilience. The findings of EN4R (stages One and Two) will therefore be shared widely with government, non-government and research sectors through dissemination at conferences and forums, publications of reports and academic papers and fostering connections to increase collaboration.

SGGPCP will continue to advocate on behalf of PCPs and build understanding externally. It will immediately bring PCPs and external stakeholders together through a successful partnership recently formed with the Lord Mayor’s Charitable Fund to use community-based systems dynamics methodology to understand the complexity of the disaster preparedness and resilience issue and identify actions.

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9. Appendix 1 - SGGPCP partner agencies and stakeholders

SGGPCP partner agencies and their core business overview

SGG Partner Agency	Abbreviation	Core Business
Brophy Family and Youth Services	BFYS	Youth and family services, accommodation, education, training and employment
Balmoral Bush Nursing Centre	BBNC	Community health services, nursing services, equipment hire, childcare
Casterton Old Courthouse Community Centre	COCCC	Community centre, adult education, social support
Casterton Memorial Hospital	CMH	Hospital services, chronic and complex care and health promotion
Dartmoor and District Bush Nursing Centre	DDBNC	Community health services, nursing services, equipment hire
Dhauwurd-Wurrung Elderly and Community Health Service	DWECH	Aboriginal health and community services
Glenelg Shire Council	GSC	Local government services
Hamilton Community House Inc	HCH	Community centre, adult education, social support
Heywood Rural Health	HRH	Hospital services, chronic and complex care and health promotion
Kyeema	Kyeema	Disability Support Services
Merino Community Health Centre	MCHC	Community health and district nursing services
Mulleraterong Centre Inc	MCI	Disability Support Services
OzChild	Oz	Children and family services
Portland District Health	PDH	Hospital services, chronic and complex care and health promotion
Portland Workskills Inc	PWI	Training and employment services
Southern Grampian Shire Council	SGSC	Local government services
Southern Grampians Glenelg Primary Care Partnership	SGGPCP	Partnership facilitation and integration to improve health and wellbeing
South West Healthcare Mental Health Services	SWHMHS	Mental health and wellbeing services
Wellways	Wellways	Mental health and wellbeing services
Western District Health Service	WDHS	Hospital services, chronic and complex care, aged care and health promotion
Winda-Mara Aboriginal Corporation Inc	WMAC	Aboriginal health and community services

Other Stakeholders

Asthma Australia		Asthma Prevention and Management
Country Fire Authority	CFA	Victorian volunteer fire authority – coordination of prevention and response to fire
Deakin Rural Health	DRH	Support of rural placements in medicine and health.
Department of Environment, Land, Water and Planning	DELWP	Victorian Government department responsible for environment, land water and planning. Has state and regional offices
Department of Health and Human Services	DHHS	Victorian Department of Health and Human Services. Has state and regional offices
Gunditjimarara	Gunditjimarara	Aboriginal cooperative providing health and support services.
Harrow Bush Nursing Centre	HBNC	Provides health and community services to Harrow and surrounding area.
Primary Health Network	PHN	Federally funded to improve health service access.
Salvo Connect		Provides services around housing, homelessness, finance. Alcohol and drug, mental health and family.
Southern Grampians Adult Education	SGAE	A registered Training Organisation providing adult education across eth area.
State Emergency Service	SES	Provides support in emergency
STAY Residential Services	STAY	Provides residential and support services for adults who have a disability
Youth Affairs Council of Victoria	Yac Vic	Advocacy for young Victorians
Warrnambool City Council	WCC	Local Government - Warrnambool

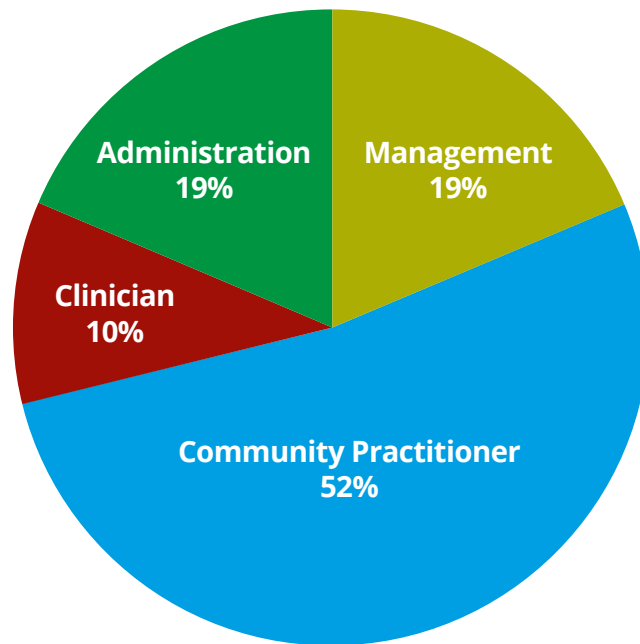
10. Appendix 2 – Commitments and implemented actions from the Summer Readiness workshops

Category	Identified commitments	Implemented actions
Community/ client engagement	<p>Create 'extreme weather' information (fire and heat) for clients;</p> <p>Early education to the community;</p> <p>Make plans with clients;</p> <p>Information sessions;</p> <p>Network update for our area/region;</p> <p>Talking more with clients about being prepared;</p> <p>Prepare to have evac plans in place for clients</p> <p>Work with clients to make up relocation kits;</p>	<p>Talking with clients about preparing relocation and emergency car kits.</p> <p>CFA information session organised.</p> <p>More frequent discussions with clients about the weather and its implications.</p> <p>Distributed information to managed residential accommodation.</p> <p>Put heatwave information on event flyers.</p> <p>Include heatwave alerts as part of regular emergency alert cycle.</p>
Staff engagement & training	<p>Update info for all staff at next staff meeting;</p> <p>Share knowledge learnt with other staff;</p> <p>Ask for more training at work - fire safety;</p> <p>Emergency network meeting with other health/ wellbeing providers;</p> <p>More networking – keeping in touch;</p> <p>Take information back to management and colleagues;</p> <p>CFA talks/information sessions;</p> <p>Arrange volunteer training;</p> <p>Develop resources.</p>	<p>Implemented annual fire training</p> <p>CFA information session organised</p> <p>Discussion around training for other events such as Asthma storm</p> <p>Sourced CFA bushfire danger display and other CFA information to have available for staff and clients.</p> <p>Provided network update for the region.</p> <p>Discussed workshop with executive / leadership team members.</p> <p>Discussed workshop with staff.</p>
Policy & procedure actions	<p>Check/follow up policies and procedures;</p> <p>Review access to alternative communication streams during extreme situations;</p> <p>Review procedures for monitoring staff who are working off site;</p> <p>Include heatwave provisions in policy/procedures;</p> <p>Create a policy and procedure around information and evacuation plans;</p> <p>Update fire training to also include information on heatwaves;</p> <p>Implement daily checklist for community staff;</p> <p>Delegate staff for monitoring and communicating weather/fire risks.</p>	<p>Reviewed the organisation's policies and procedures and suggested changes / made edits.</p> <p>Included heatwave provisions in risk policy/ procedures;</p> <p>Whole of organisation approach to disseminating emergency information – linking with more state-wide alerts relevant to the region and clients.</p> <p>Heatwave alerts now part of normal workflow.</p> <p>Discussions about supporting health services in a more strategic way, looking at a systems approach to environmental hazards.</p> <p>New procedures for monitoring lone staff in the field.</p>
Practical preparedness actions - WORK	<p>Emergency bags for vulnerable people;</p> <p>Staff scenario and role play;</p> <p>Vehicle emergency/fire safety kits;</p> <p>Fire kit for organisation and for clients;</p> <p>Buy a radio for work cars.</p>	<p>Relocation / emergency kits for work cars & community transport buses</p> <p>First aid kits for cars</p> <p>Respiratory kits for cars</p> <p>Fridges into work vehicles with cool drinks, water, sunscreen etc.</p> <p>Reviewing emergency and communication apps for smart phones.</p>
PERSONAL practical preparedness actions	<p>Share what I've learnt with family;</p> <p>Emergency plan;</p> <p>Who does what list for family;</p> <p>Talk to children - explain our plan for heatwave and evacuation;</p> <p>Create emergency kit for myself and family members;</p> <p>Fire Danger Rating to educate my children in home.</p>	<p>Emergency kits for personal car.</p> <p>Engaged with colleagues and developed personal emergency plan.</p>

11. Appendix 3 – Summer Readiness workshop attendees

Workshop participants represented various roles within their organisations. The following graph shows the percentage of attendees representing management, clinicians, administration or community practitioner roles.

Participant roles



12. Appendix 4 – MCHC District Nurse information & instructions



Did you know that Heatwave kills more Australians than any other natural disaster? In 2009, there were 374 excess deaths during the Heatwave in Victoria – that was before the Black Saturday Bushfires.

Mostly we are all aware of how to look after ourselves when it is very hot, but sometimes we can become complacent so **Pass the Hot Parcel is a little project to help us be more aware and to take the right actions in the event of a Heatwave.**

Pass the Hot Parcel instructions:

1. Take a Water Bottle Cooler out of the cooler bag.
2. Inside the Water Bottle Cooler are further instructions, a brochure, a room thermometer and a form with some easy questions to answer with an envelope.
3. Please fill in the form and put in the envelope and place in the plastic pocket in the bag.
4. Now pass the cooler bag onto someone else in your community.
5. Make sure you use your water cooler bottle to keep your water cool and stay hydrated to be healthy.
6. Use the room thermometer to monitor how hot your house is and try to keep it cool.

Remember it is important to look after yourself in the heat.

If your body overheats you can develop heat cramps, heat exhaustion or even heat stroke.

If you would like more information on this project please contact Alison at the Merino Community Health Centre or Jo Brown at SGGPCP on 555 18563.

13. Appendix 5 – Pass the Parcel data collection form

Thank you for participating in this community project with the Merino Community Health Centre. This project is looking at different ways to build community awareness and increase actions around Heatwave. We are working with Southern Grampians Glenelg Primary Care Partnership (SGGPCP) on this project.

In order to gather some information we would like you to complete this short questionnaire. We will ensure your privacy is respected and your responses will remain anonymous. We may also contact you after the project to ask some more information. Everyone who participates in this project will be eligible for some prizes. First off, there are 10 cooler bags to be won just by participating.

Your Name:

Your Address

.....

Age:

Gender

Do you live alone?

Yes

No

Do you have any medical conditions such as diabetes, kidney disease, mental illness or ongoing ailments?

Yes

No

Who passed you the cooler bag?

.....

Who are you passing the cooler bag onto?

.....

After you have completed the questions please place in the sealed envelope provided and leave in the bottom of the cooler bag.

Thank you

Regards Alison



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